

THE MINERAL INDUSTRY OF LEBANON

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The Lebanese mineral industry continued to make its historically small contribution to the country's economy. In recent years, Lebanon has been known to produce cement, gypsum, lime, phosphatic fertilizers, phosphoric acid, salt, steel, and sulfuric acid for domestic consumption. Modest deposits of asphalt, coal, and iron ore occur in Lebanon. In 2004, Lebanon's gross domestic product (GDP) amounted to about \$22.1 billion at purchasing power parity. The per capita GDP at purchasing power parity was about \$5,900. The GDP grew by 5% in 2004 compared with an increase of 3% in 2003 (International Monetary Fund, 2005, p. 210; 2005¹).

Consolidated Steel Lebanon SAL, which was Lebanon's only rolling mill, shut down in 2002 because of high input costs. The country depended upon imports to meet its demand for steel. The International Iron and Steel Institute (2004, p. 82) estimated that consumption of finished steel products amounted to 461,000 metric tons (t) in 2003 compared with 443,000 t in 2002 and 909,000 t in 1998. In 2004, rebar prices rose by about 35% because of the Middle Eastern construction boom (Banque du Liban, 2004, p. 19; Irish, 2005).

Lebanon's cement factories were owned by Ciment de Sibline SAL, Cimenterie Nationale SAL, Holcim (Liban) SAL, and Seament SAL. Domestic cement sales amounted to 2.7 million metric tons (Mt) in 2003. Holcim (Liban) had a market share of 43%; Cimenterie Nationale, 32%; Ciment de Sibline, 19%; and Seament, 6%. Imports of asbestos, cement, plaster, and stone amounted to \$135 million, or 2% of total imports. In 2004, cement prices rose by 20% because of the Middle Eastern construction boom (Banque du Liban, 2004, p. 19; Irish, 2005; Investment Development Authority of Lebanon, undated).

Lebanon had about 1,200 quarries, of which only 75 had permits to operate. In July 2003, the Government decided to shut down all Lebanon's quarries and import sand and gravel from Syria because of the environmental damage caused by the quarries. Forest cover declined from 20% of the country's land area in 1975 to less than 7% in 2004 because of civil war, firewood consumption, quarry operations, and urban expansion. Sand and gravel prices increased sharply because of the closures; many quarries continued to operate illegally in 2004 (Raad, 2004; Saab, 2004).

Lebanon imported phosphate rock from Syria to produce phosphoric acid and such fertilizers as triple superphosphate. Lebanon Chemicals Company SAL produced sulfuric acid for use in fertilizer manufacturing; imports were sourced from Russia and Saudi Arabia. Production fell by 3% in 2003 (table 1).

Lebanon has no petroleum reserves; the country relies on imports for its energy requirements. In 2003, imports of petroleum products amounted to 4.73 Mt, which was a decrease of 1.8% from that of 2002. Lebanon was expected to start importing natural gas from Syria by May 2005 as part of the Arab Gasline project. In the first year of the project, the Deir Ammar power station would produce electricity from natural gas; imports of natural gas were expected to be about 550 million cubic meters per year. Electricité du Liban (EdL) was expected to save \$100 million per year as a result of using natural gas instead of fuel oil. By mid-2006, the Zahrani power station was expected to start production of electricity. Imports of natural gas would rise to nearly 1.1 billion cubic meters per year and were expected to result in costs savings for EdL of \$200 million per year. In a subsequent phase of the project, imports could rise to 2.2 billion cubic meters per year. The conversion of all Lebanese powerplants from natural gas to fuel oil would save \$300 million per year (Iran Daily, 2003; Arab Petroleum Research Center, 2004; Banque du Liban, 2004, p. 6; Daily Star, 2005).

In 2003, Lebanon's production of electricity amounted to 10,547 gigawatthours, which was an increase of 3.5% from that of 2002. EdL estimated that the rising demand for electricity and the decommissioning of the 331-megawatt (MW) Jieh and 65-MW Al Haricha powerplants would necessitate the installation of 750 MW of new capacity by 2005 (Arab Petroleum Research Center, 2004; Banque du Liban, 2004, p. 6).

Lebanon's transportation network comprised about 7,300 kilometers (km) of roads, of which 6,200 km was paved. Railroad track totaled 401 km, most of which was damaged during the civil war. The country had 209 km of crude oil pipelines.

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¹References that include a section mark (§) are found in the Internet References Cited section.

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TABLE 1
LEBANON: PRODUCTION OF MINERAL COMMODITIES¹

(Metric tons unless otherwise specified)

Commodity ²	2000	2001	2002	2003	2004
Cement, hydraulic thousand metric tons	2,808	2,890	2,852	2,900 ^e	2,900 ^e
Gypsum ^e	1,700	1,600	1,700	1,700	1,700
Iron and steel, metal, semimanufactures	80,000	80,000 ^e	40,000 ^e	--	--
Lime ^e	14,000	14,000	14,000	14,000	14,000
P ₂ O ₅ equivalent:					
Phosphatic fertilizers	15,000	20,000	30,000	53,000 ^r	85,000
Phosphoric acid	122,000	135,000	150,000	166,000 ^r	175,000
Salt ^e	3,500	3,500	3,500	3,500	3,500
Sulfuric acid:					
Gross weight	400,000	400,000	480,000	485,000 ^r	495,000
S content	131,000	131,000	157,000	159,000 ^r	162,000

^eEstimated; estimated data are rounded to no more than three significant digits. ^rRevised. -- Zero.

¹Table includes data available through August 15, 2005.

²In addition to the commodities listed, sand and gravel and other construction materials were also produced, but quantities are not reported, and information is inadequate to make estimates of output.

TABLE 2
LEBANON: STRUCTURE OF THE MINERAL INDUSTRY IN 2004

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies	Location of main facilities	Annual capacity
Cement	Holcim (Liban) SAL (Holcim Ltd., 55.8%)	Chekka	1,800
Do.	Cimenterie Nationale SAL	do.	1,650
Do.	Ciment de Sibline SAL	Sibline	1,200
Do.	Seament SAL	Chekka	500
Phosphate fertilizers	Lebanon Chemicals Company SAL	Selaata	NA
Phosphoric acid	do.	do.	NA
Steel	Consolidated Steel Lebanon SAL ¹	Amchit	300
Sulfuric acid	Lebanon Chemicals Company SAL	Selaata	NA

NA Not available.

¹Shut down in 2002.